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METHOD FOR OBTAINING CLOSTRIDIUM OEDEMATIENS TOXIN

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Method for Obtaining Clostridium Oedematiens Toxin

by

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METHOD FOR OBTAINING CLOSTRIDIUM OEDEMATIENS TOXIN

Methods are known for obtaining Cl. Oedematiens toxin by means of culturing in nutritive medium based on liver water, pepsin and pancreatic hydrolysate of casein.

The essence of the proposed method is the fact that the cultures for seeding are selected with the help of luminescent microscopy and ~ 3% dextrin and ~ 0.3% porolon[1] or wood sawdust is added to the medium. Such a method of obtaining the toxin facilitates an increase in its yield.

In order to obtain Cl. Oedematiens toxin, a broth composed of 8.33% pancreatic hydrolysates of casein, 25% pepsin hydrolysate of casein, 20% liver water and 46.67% distilled water is used as a nutritive medium. The broth contains 1-3% peptone, 0.15- 0.18% amine nitrogen and 0.075-0.13% tryptophan. To the broth are added approximately 0.3% monosubstituted sodium and potassium phosphates, it is heated for fifteen minutes, filtered through a cassette filter and decanted into flasks of 3 l capacity, in which are first placed a small amount of hygroscopic cotton, chemically pured chalk, finely shreded cellophane, and as filling - 0.3% of wood sawdust or porolon[1]. Before seeding 3% dextrin, prepared by the method of acid hydrolysis of starch, is added as the source of carbohydrate nutrition. In order to free

1. Direct transliteration, possibly a tradename.

the sawdust from colophony and resins is treated with acetone or dichloroethane.

The culture for seeding is stained with acridine orange and under the control of the luminescent microscope large colonies, which lumines with a green light, are isolated. The colonies are isolated on direct agar and are further propogated in pepsin-peptone broth.

Object of the Invention

The method of obtaining Clostridium Oedematiens toxin by means of culturing a nutritive medium based on liver water, pepsin and pancreatic hydrolyzates of casein, is distinguished by the fact that, with the aim of increasing the yield of toxin, cultures for seeding are selected with the help of luminescent microscopy and 3% dextrin and 0.3% porolon[1] or wood sawdust are added to the medium.

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13. ABSTRACT

The method of obtaining Clostridium Oedematiens toxin by means of culturing a nutritive medium based on liver water, pepsin and pancreatic hydrolyzates of casein, is distinguished by the fact that, with the aim of increasing the yield of toxin, cultures for seeding are selected with the help of luminescent microscopy and 3% dextrin and 0.3% porolon or wood sawdust are added to the medium.

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